



PATENT IN0117

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

TECH CENTER 1600/2900

APR 29 2002

RECEIVED

In re Application of:

Zhu *et al*

Application No.: 10/013,071

Filed: December 10, 2001

For:

**DIARYL PEPTIDES AS NS3-SERINE PROTEASE INHIBITORS OF HEPATITIS C VIRUS**

Assistant Commissioner for Patents  
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

Sir:

It is requested that the following documents cited in the application, as listed below and in the accompanying form PTO-1449, be considered and made of record.

Documents cited in the Application:

U.S. 5,712,145  
WO 89/04669  
WO 98/17679  
WO 98/22496  
WO 99/07734  
WO 00/09558  
WO 00/09543  
EP 381 216

Publications:

Pizzi *et al.* (1994) *Proc. Natl. Acad. Sci (USA)* 91:888-892  
Failla *et al.* (1996) *Folding & Design* 1:35-42  
Kollykhalov *et al.* (1994) *J. Virol.* 68:7525-7533  
Komoda *et al.* (1994) *J. Virol.* 68:7351-7357  
Landro *et al.* (1997) *Biochem.* 36:9340-9348  
Ingallinella *et al.* (1998) *Biochem.* 37:8906-8914  
Llinàs-Brunet *et al.* (1998) *Bioorg. Med. Chem. Lett.* 8:1713-1718  
Martin *et al.* (1998) *Biochem.* 37:11459-11468  
Dimasi *et al.* (1997) *J. Virol.* 71:7461-7469  
Martin *et al.* (1997) *Protein Eng.* 10:607-614  
Elzouki *et al.* (1997) *J. Hepat.* 27:42-48



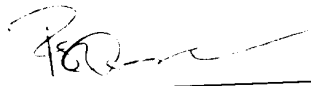
BioWorld Today 9(217): 4 (November 10, 1998)  
Berenguer et al. (1998) *Proc. Assoc. Am. Physicians* 110(2):98-112  
Hoofnagle et al. (1997) *N. Engl. J. Med.* 336:347  
R. Zhang et al, *Analytical Biochemistry*, 270 (1999) 268-275  
D. L. Sali et al, *Biochemistry*, 37 (1998) 3392-3401  
K. Barlos et al, *Int. J. Pept. Protein Res.*, 37 (1991), 513-520  
K. Holmberg et al, *Acta Chem. Scand.*, B33 (1979) 410-412  
A. Marchetti et al, *Synlett.*, S1 (1999) 1000-1002  
W. Han et al, *Bioorganic & Biomedical Chem Lett.*, 10 (2000) 711-713  
S. Agrawal et al, "Development and Characterization of Hepatitis C Virus Serine  
Protease Cell-based Trans-Cleavage Assay", *Hepatology* Supplement to Volume 30 (No. 4,  
Part 2, October 1999), *Abstract No. 615* (Proceedings of AASLD 50<sup>th</sup> Annual Meeting,  
Dallas, Texas, November 5-9, 1999.  
L. Hughes, *Org. Reactions*, 42 (1992) 335.  
R. F. Heck, *Org. Reactions*, 27 (1989) 345-390.

The submission of these documents is not to be presumed as an admission that these documents are prior art. The documents are being furnished solely for their possible utility in the examination of the present case. Since no Office Action has issued on the merits of this case, Applicants believe that no fee is due at this time. If, however, any fees are due, the Office may charge such fees to Deposit Account No. 19-0365.

If the Examiner has any questions, the Examiner is invited to contact the undersigned.

April 12, 2002  
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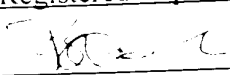
Respectfully submitted,

  
\_\_\_\_\_  
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Palaiyur S. Kalyanaraman  
Registered Representative

  
\_\_\_\_\_  
Signature and Date of Signature

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Sheet 1 of 1  
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FORM PTO-1449

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.:  
IN01174SERIAL NO.:  
10/013,071INFORMATION DISCLOSURE STATEMENT  
BY APPLICANTAPPLICANT  
Zhu, et al

(Use several sheets if necessary)

FILING DATE:  
December 10, 2001GROUP:  
1614

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE
AA	U.S. 5,712,145					
AB						

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO
AC	WO 89/04669					
AD	WO 98/17679					
AE	WO 98/22496					
AF	WO 98/07734					
AG	WO 00/09558					
AH	WO 00/09543					
AI	EP 381 216					
AJ						
AK						

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

AL	Pizzi, (1994) <i>Proc. Natl. Acad. Sci(USA)</i> 91:888-892
AM	Failla (1996) <i>folding &amp; Design</i> 1:35-42
AN	Kollykhalov (1994) <i>J. Virol.</i> 68:7525-7533
AO	Komoda (1994) <i>J. Virol.</i> 68:7351-7357
AP	Landro (1997) <i>Biochem</i> 36:9340-9348
AQ	Ingallinella (1998) <i>Biochem</i> 37:8906-8914
AR	Llinas-Brunet (1998) <i>Bioorg. Med. Chem. Lett.</i> 8:1713-1718
AS	Martin (1998) <i>Biochem</i> 37:11459-11468
AT	Dimasi (1997) <i>J. Virol.</i> 71:7461-7469
AU	Martin (1997) <i>Protein Eng.</i> 10:607-614
AV	Elzouki (1997) <i>J. Hepat.</i> 27:42-48
AW	<i>Bio World Today</i> 9(217): 4 (November 10, 1998)
AX	Berenguer (1998) <i>Proc. Assoc. Am. Physicians</i> 110(2): 98-112
AY	Hoofnagle (1997) <i>New England Journal Med.</i> 336:347
AZ	Zhang (199) <i>Analytical Biochemistry</i> 270:268-275
BA	Sali (1998) <i>Biochemistry</i> 3392-3401
BB	Barlos (1991) <i>Int. J. Pept. Protein Res</i> 513-520
BC	Holmberg (1979) <i>Acta Chem. Scand.</i> , B33:410-412
BD	Agrawal(1999) <i>Hepatology</i> Supplement to Vol 30 "Development and Characterization of Hepatitis C Virus Serine Protease Cell-based Trans-Cleavage Assay"
BE	Hughes (1992) <i>Org. Reactions</i> 42:335
BF	Heck (1989) <i>Org. Reactions</i> 27:345-390
BG	Han, (2000) <i>Bioorganic &amp; Medicinal Chemistry Letters</i> 10 " $\alpha$ -Ketoamides, $\alpha$ -Ketoesters and $\alpha$ -Kiketones as HCV NS3 Protease Inhibitors" pp. 711-713.
BH	Marchetti(1999) <i>Synlett</i> , Vol. S1, "Synthesis of Two Novel Cyclic Biphenyl Ether Analogs of an Inhibitor of HCV NS3 Protease", pp 1000-1002.

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.